

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,845,175 B2
APPLICATION NO. : 09/830264
DATED : January 18, 2005
INVENTOR(S) : Avi Kopeloman et al.

Page 1 of 11

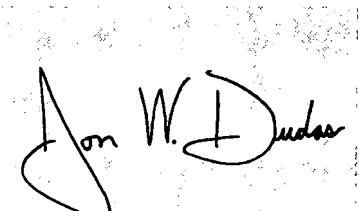
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Delete the title page and substitute therefore the attached title page.

Delete Drawing Sheets 1-11 and substitute therefore the attached Drawing Sheets 1-9.

Signed and Sealed this

Twenty-first Day of August, 2007



A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is fluid and cursive, with "Jon" on the left and "W. Dudas" on the right.

JON W. DUDAS
Director of the United States Patent and Trademark Office

(12) United States Patent
Kopelman et al.(10) Patent No.: US 6,845,175 B2
(45) Date of Patent: Jan. 18, 2005(54) DENTAL IMAGE PROCESSING METHOD
AND SYSTEM

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5,318,441 A *	6/1994	Koller
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(75) Inventors: Avi Kopelman, Tel Aviv (IL); Eldad Taub, Reut (IL)

(73) Assignee: Cadent Ltd., Or Yehuda (IL)

433/68

433/223

600/407

(1*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 479 days.

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WO	01/80761 A2	11/2001

(21) Appl. No.: 09/830,264

OTHER PUBLICATIONS

(22) Filed: Apr. 23, 2001

International Search Report for International Application No. PCT/IL99/00577, mailed on Feb. 17, 2000.

(65) Prior Publication Data

An English language title and abstract is provided for DE 4141311.

US 2003/0169913 A1 Sep. 11, 2003

Related U.S. Application Data

* cited by examiner

(63) Continuation of application No. PCT/IL99/00577, filed on Nov. 1, 1999.

Primary Examiner—Todd E. Manahan

(30) Foreign Application Priority Data

(74) Attorney, Agent, or Firm—Nath & Associates PLLC; Gary M. Nath; Lee C. Heiman

Nov. 1, 1998 (IL)

(51) Int. Cl. 7 G06K 9/00

(52) U.S. Cl. 382/154; 382/294; 128/922

(58) Field of Search 382/128, 131,

382/154, 285, 294; 600/587, 589, 590;

128/922; 433/24, 29, 68, 69, 215

(56) References Cited

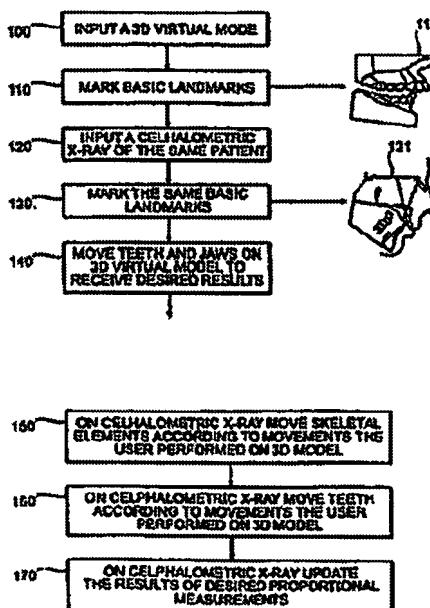
ABSTRACT

U.S. PATENT DOCUMENTS

An image processing method for use in dentistry or orthodontic is provided. Two images of teeth, one being a two-dimensional image and one a three-dimensional image are combined in a manner to allow the use of information obtained from one to the other. In order to combine the two images a set of basic landmarks is defined in one, identified in the other and then the two images are registered.

5,151,856 A 9/1992 Halman et al.

23 Claims, 9 Drawing Sheets



U.S. Patent

Jan. 18, 2005

Sheet 1 of 9

6,845,175 B2

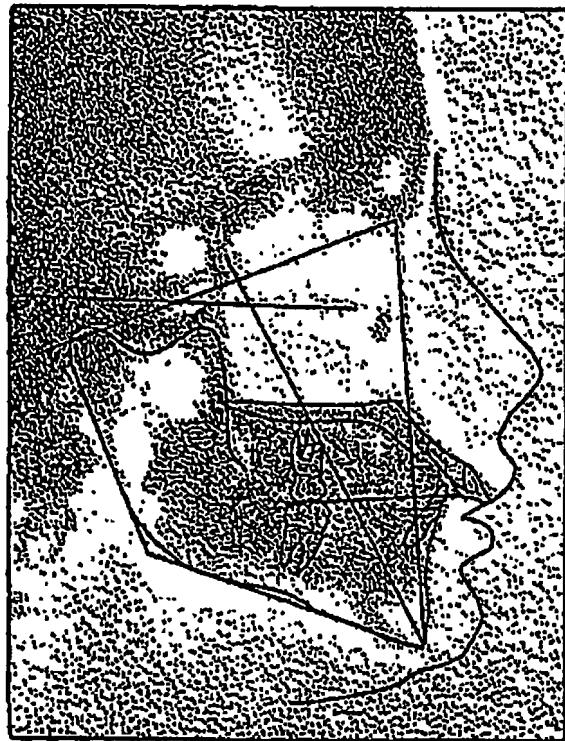


FIG. 1A

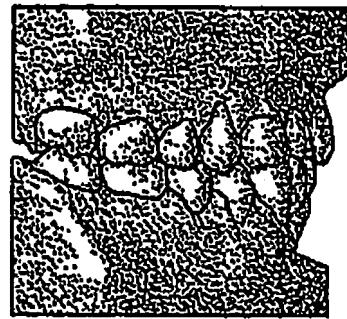


FIG. 1B
PRIOR ART

U.S. Patent

Jan. 18, 2005

Sheet 2 of 9

6,845,175 B2

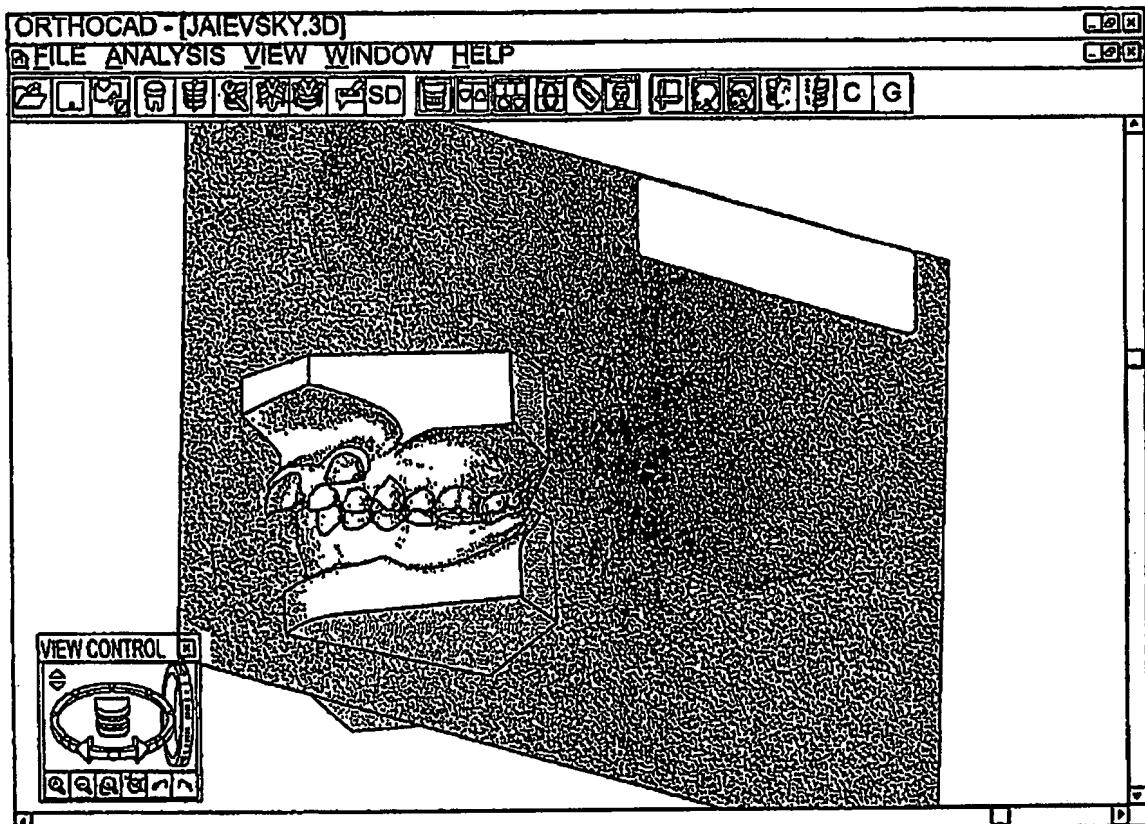


FIG. 2

U.S. Patent

Jan. 18, 2005

Sheet 3 of 9

6,845,175 B2

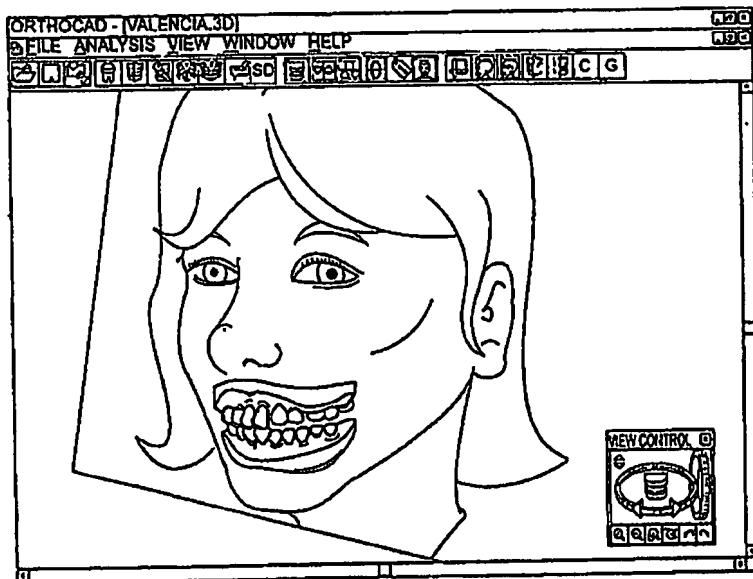


FIG. 3A

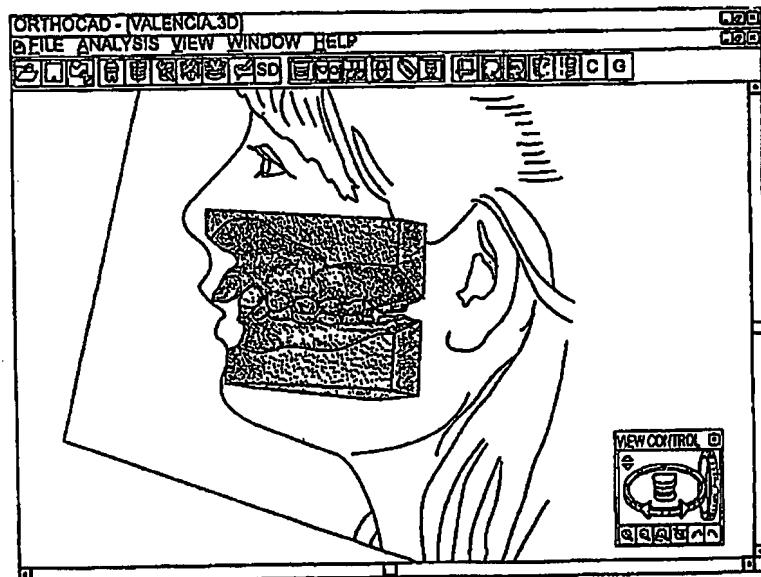


FIG. 3B

U.S. Patent

Jan. 18, 2005

Sheet 4 of 9

6,845,175 B2

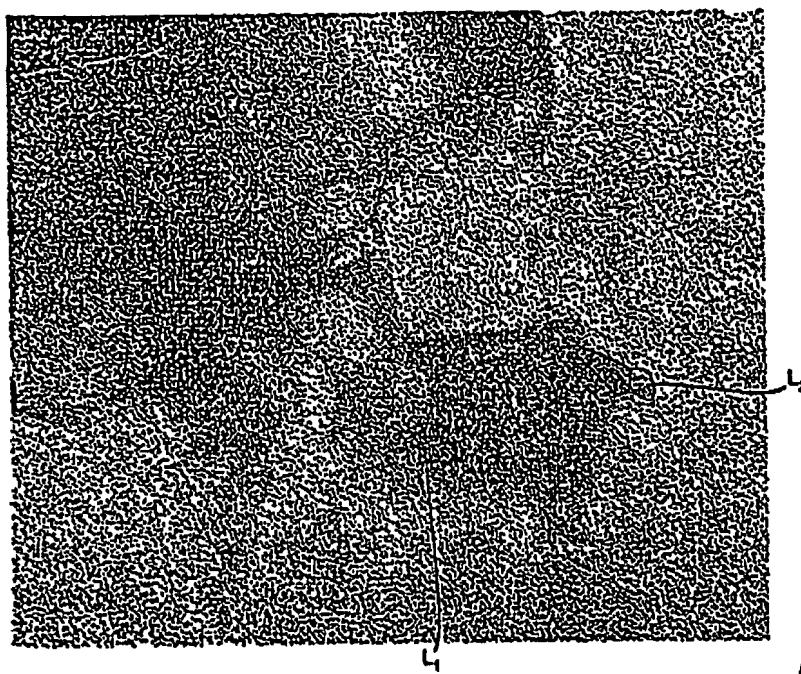


FIG. 4A

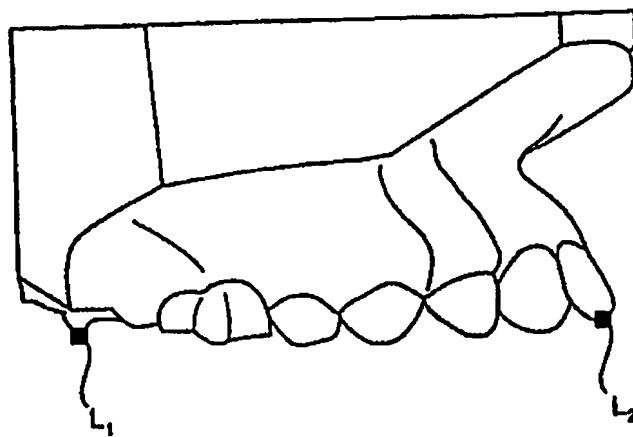


FIG. 4B

U.S. Patent

Jan. 18, 2005

Sheet 5 of 9

6,845,175 B2

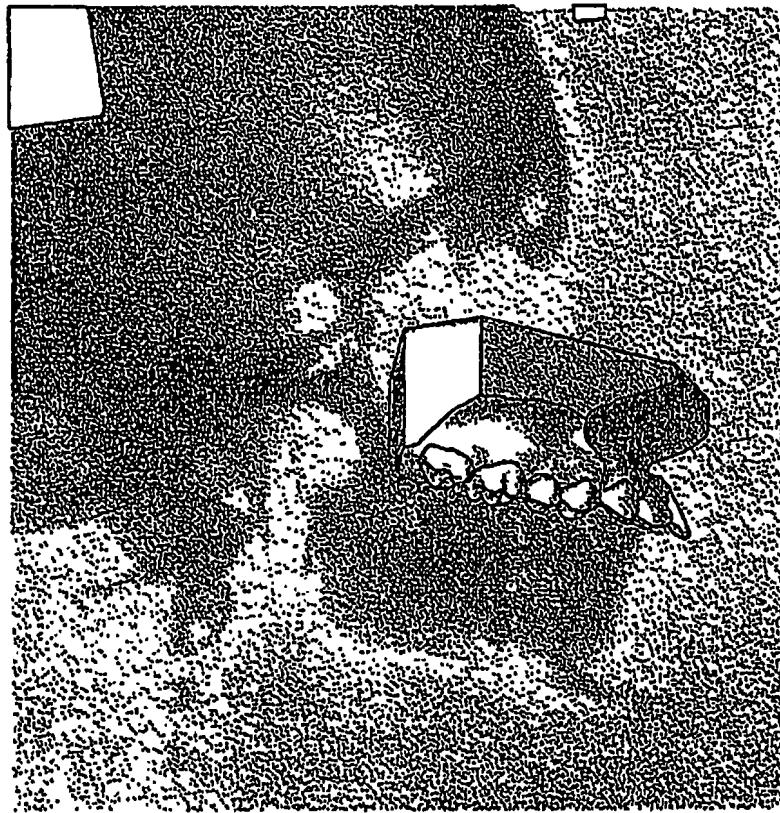


FIG. 5

U.S. Patent

Jan. 18, 2005

Sheet 6 of 9

6,845,175 B2

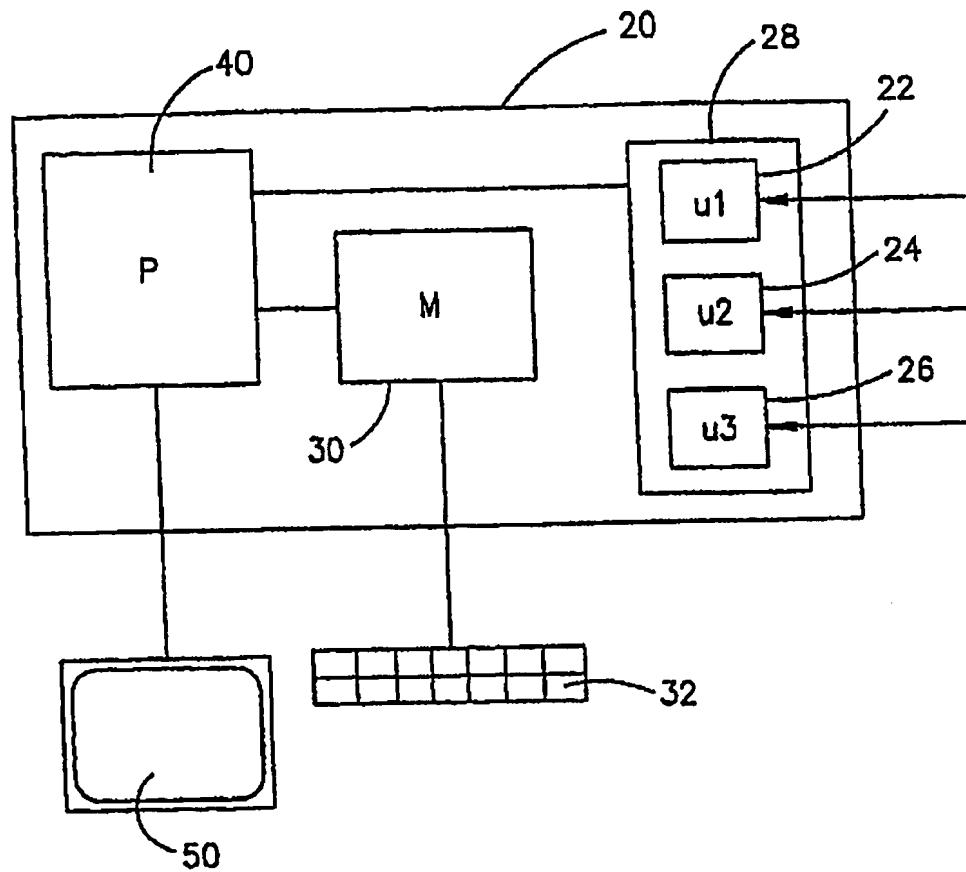


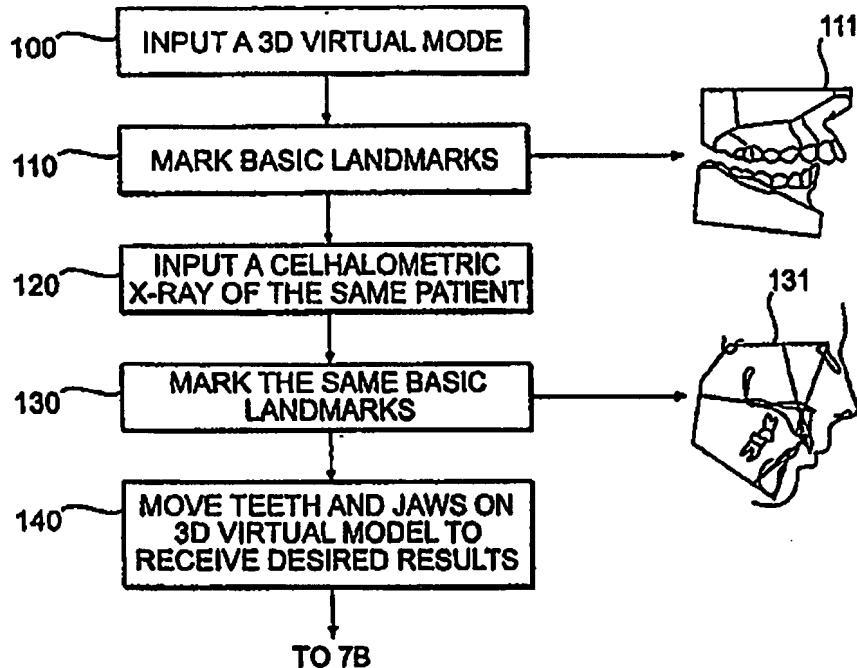
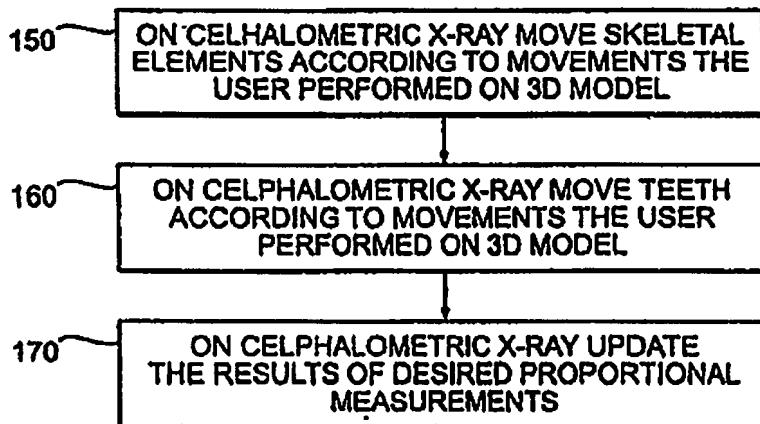
FIG.6

U.S. Patent

Jan. 18, 2005

Sheet 7 of 9

6,845,175 B2

**FIG. 7A****FIG. 7B**

U.S. Patent

Jan. 18, 2005

Sheet 8 of 9

6,845,175 B2

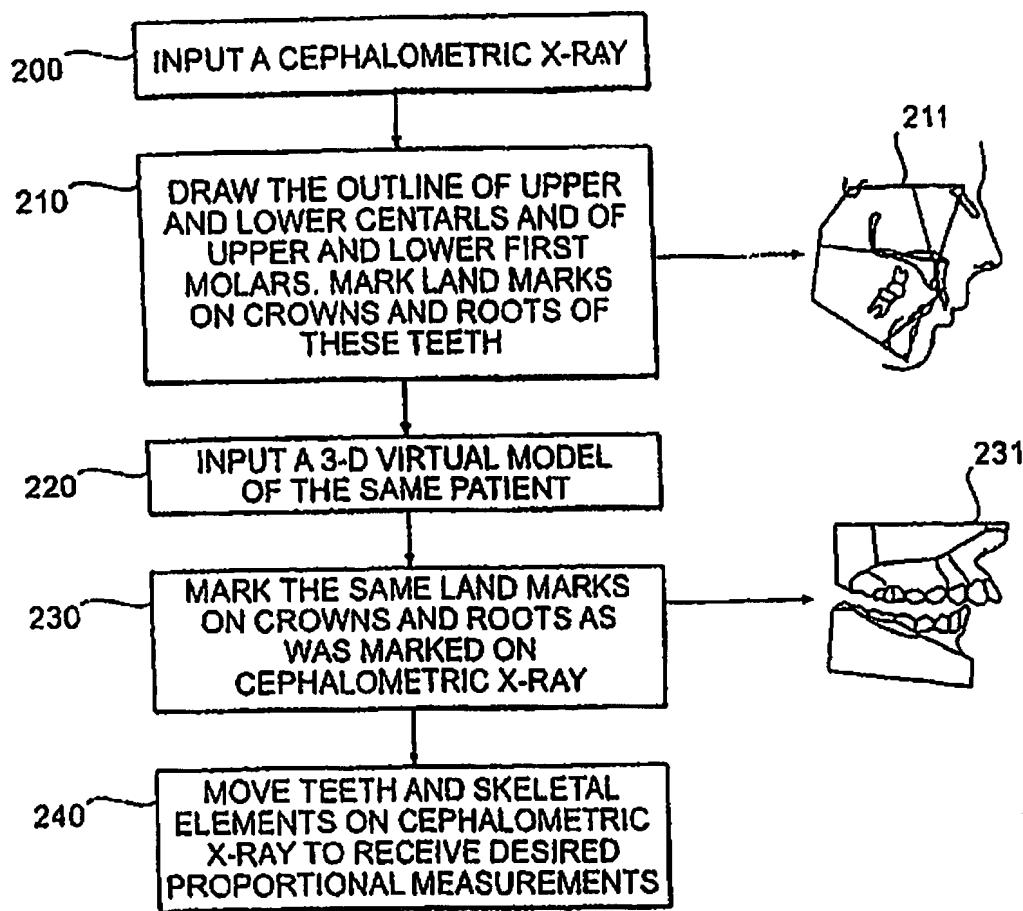


FIG. 8A

U.S. Patent

Jan. 18, 2005

Sheet 9 of 9

6,845,175 B2

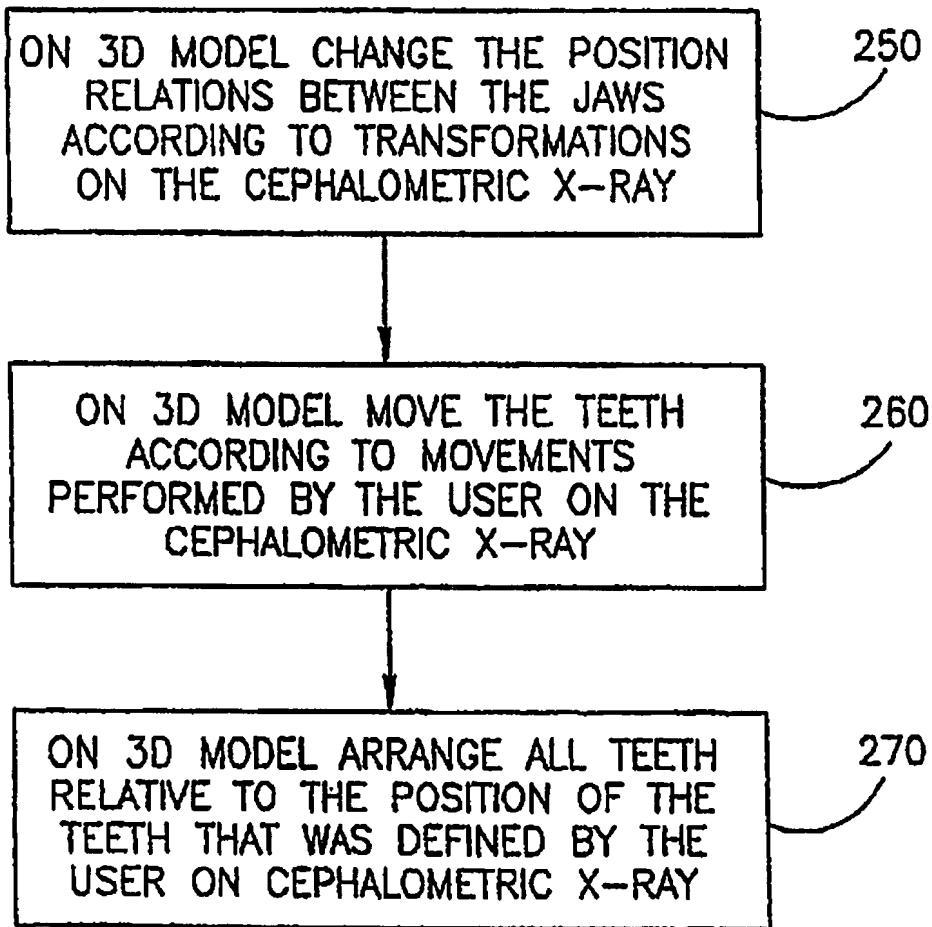


FIG.8B